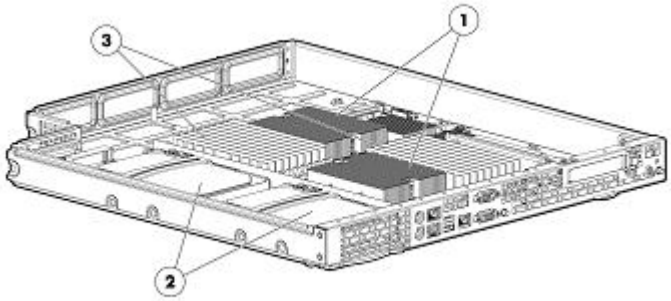
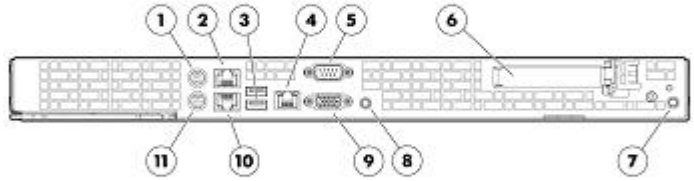
Overview





Inside View:

1. Two (2) AMD Opteron 2400 series processors
2. Two 3.5" non-hot plug hard drives using a quick release drive carrier
3. 16 DDRs DIMM slots

Front View:

1. Mouse
2. (1) 1Gbit NIC
3. (2) USB Ports
4. Optional Dedicated Management port
5. Serial Portt
6. Optional low profile x16 PCI-e Gen 1
7. Power button
8. UID
9. Video Port

At A Glance

The HP ProLiant SL165z G6 server is part of a new family, HP ProLiant SL6000, of HP server solutions optimized for scale-out customers to greatly reduce costs, maximize power efficiency, by sharing power supplies and fans, and maintain total flexibility.

Two independent HP ProLiant SL165z G6 servers go into the 2U HP ProLiant z6000 G6 Chassis. The HP ProLiant SL165z G6 server is a two socket AMD server with 16 DDR2 DIMM sockets and support for a low profile x16 PCI-e Gen 1.

The HP ProLiant SL165z G6 is optimized for applications needing large amounts of memory.

- Processors:
  - Supports up to two AMD Opteron™ 2400 series Six-Core processors
  - Supports up to two AMD Opteron™ 2300 series Quad-Core processors
  - Supports DirectConnect Architecture
  - Supports Power Now
- Memory:
  - 16 DIMM slots supporting up to 64GB REG PC2-6400 DDR2-800 MHz memory with Advanced ECC
  - 16 DIMM slots supporting up to 128GB REG PC2-5300 DDR2-667 MHz memory with Advanced ECC
- Internal Drive Support:
  - Support for up to two 3.5" non-hot plug Serial ATA (SATA) or Serial Attached SCSI (SAS) hard drives using a quick release drive carrier
  - Support for up to four 2.5" non-hot plug Serial ATA (SATA), Serial Attached SCSI (SAS), or Solid State Drive (SSD) hard drives using a quick release drive carrier and the SFF drive cage
- Network Controller:

Overview

- HP NC362i Integrated Dual Port Gigabit Server Adapter
- Storage Controllers:
  - Non-Hot Plug SATA Models: HP Embedded SATA Controller
- Expansion Slots:
  - Standard - PCI-Express assembly includes:
    - Slot 1: Low Profile PCI-Express x16
- Infrastructure Management:
  - HP ProLiant Onboard Administrator Powered by Lights Out 100i
  - Remote Management support (IPMI 2.0 and SMASH support
  - Virtual Media plus Virtual KVM support with LO100i Advanced license
  - HP Insight Control suite for Linux (ICE-LX), a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, monitor, control and optimize your IT infrastructure through a single, simple management console. The ICE-LX suite supports Linux-based servers and management consoles.
- USB Ports:
  - Three USB ports (2 front, 1 internal option)
- Optical Drive:
  - External support only
- Power Supply:
  - The 2U chassis supports three power supply options:
    - Common Slot Power Supplies enable power capping and hot-pluggability
      - HP 1200W CS HE Silver Power Supply (Hot Plug, Autoswitching) (optional)
      - HP 750W CS HE Gold Power Supply (Hot Plug, Autoswitching) (optional)
      - HP 460W CS HE Gold Power Supply (Hot Plug, Autoswitching) (optional)
- Form Factor:
  - HP ProLiant z6000 G6 Chassis - 2U
  - HP ProLiant SL165z Server - 1U server tray
- Deployment/Serviceability:
  - HP ProLiant SL165z G6 models have two different rail kits to choose from:
    - 10U bulk rail kit - Used to fit in HP 10000 series racks
      - One 10U bulk rail kit will hold up to five z6000 chassis, thus ten SL165z G6 servers
    - 2U rail kit - Used to fit in 3rd party racks or to sell one z6000 chassis at a time
      - One 2U rail kit will hold one z6000 chassis, thus two SL165z servers
  - Customer Self Repair (CSR): HP products are designed with many CSR parts to minimize repair time and allow for greater flexibility in performing defective parts replacement
- Warranty:
  - This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty.
    NOTE: Server Warranty includes 1 year Parts, 1 year labor, and 1 year on-site service. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
    http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html.

Standard Features

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

Processor One of the following depending on Model	**Six-Core Processors** AMD Opteron™ processor Model 2435 (2.6 GHz, 75W ACP) AMD Opteron™ processor Model 2431 (2.4 GHz, 75W ACP) AMD Opteron™ processor Model 2427 (2.2 GHz, 75W ACP) AMD Opteron™ processor Model 2425HE (2.1 GHz, 55W ACP) AMD Opteron™ processor Model 2423HE (2.0 GHz, 55W ACP) **Quad-Core Processors** AMD Opteron™ processor Model 2393SE (3.1GHz, 105W ACP) AMD Opteron™ processor Model 2389 (2.9GHz, 75W ACP) AMD Opteron™ processor Model 2384 (2.7GHz, 75W ACP) AMD Opteron™ processor Model 2380 (2.5GHz, 75W ACP) AMD Opteron™ processor Model 2376 (2.3GHz, 75W ACP) AMD Opteron™ processor Model 2381HE (2.5GHz, 55W ACP) AMD Opteron™ processor Model 2376 HE (2.3GHz, 55W ACP) AMD Opteron™ processor Model 2374 HE (2.2GHz, 55W ACP) AMD Opteron™ processor Model 2377EE (2.3GHz, 50W ACP)		
Upgradeability	Upgradeable to two processors		
Chipset	ServerWorks HT2100 and HT1000		
Cache Memory	6MB shared L3		
Memory Protection	Advanced ECC		
Memory One of the following depending on Model	Type	REG PC2-6400 DIMMs (DDR2-800) REG PC2-5300 DIMMs (DDR2-667)	
	Maximum	128 GB	(16 x 8 GB)
Network Controller	HP NC362i Integrated Dual Port Gigabit Server Adapter		

Standard Features

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
1	PCI Express	x16	x16	3	Low Profile	

* Default bus assignment. Inserting cards with PCI bridges may alter the actual bus assignment number.

** Slots are enumerated differently based on OS. MS OS's enumerate from lowest to highest Device ID by bus (starting with the lowest bus).

NOTE: Slot 2 is reserved for a storage controller with the Hot Plug Model chassis.

Storage Controller	Non-Hot Plug SATA	HP Embedded SATA Controller

NOTE: A diskette drive or virtual FDD using LO100i Advanced Pack is needed to install storage controller drivers during a Windows operating system installation from a CD.

Storage	Diskette Drives	Via USB only
	Optical Drives	Via USB only
	Hard Drives	None ship standard
		Up to 2 Non-hot plug SATA or SAS 3.5" drives supported
		Up to 4 Non-hot plug SATA, SAS, or SSD 2.5" drives (requires SFF drive cage) supported

Maximum Internal Storage	Non-Hot Plug SATA 3.5"	2.0TB	2 x 1TB
	Non-Hot Plug SAS 3.5"	600GB	2 x 300GB
	Non-Hot Plug SATA 2.5"	2.0TB	4 x 500GB
	Non-Hot Plug SAS 2.5"	1.2TB	4 x 300GB
	Non-Hot Plug SSD 2.5"	480GB	4x120GB

Interfaces	Parallel	None
	Network RJ-45 (Ethernet)	HP NC362i Integrated Dual Port Gigabit Server Adapter
	Serial	1
	Pointing Device (Mouse)	1
	Graphics	1
	Keyboard	1
	USB	3 (two front 1 internal option)

Graphics	32MB shared supporting 1600x1200x16M resolution

Form Factor	HP ProLiant z6000 G6 Chassis - 2U Chassis
	NOTE: Can support two SL165z server trays in the 2U chassis.
	HP ProLiant SL165z G6 Server - 1U server tray

Standard Features

Embedded Manageability	HP ProLiant Onboard Administrator Powered by LO100i and LO100i Advanced	HP ProLiant Onboard Administrator Powered by Lights-Out 100i with Optional LO100i Advanced Licenses for Virtual KVM and Virtual Media. Standard Features: • Embedded IPMI standard reporting • System event log access • Remote Serial console (serial redirection) • Browser, Telnet access • SMASH-CLP compliant • IPMI 2.0 compliant • Secure Socket Layer (SSL) Encryption • Secure Shell (SSH) Encryption Licensed Features: • Virtual media (Floppy, CD, USB 2.0) • Virtual KVM
HP Insight Control management software	HP Insight Control for Linux	HP Insight Control for Linux (IC-Linux), as a product option, delivers essential lifecycle management that can help save time and money by integrating discovery, server deployment, firmware updates & provisioning, health & performance management, remote management, and virtualization. This makes it easy to optimize your IT infrastructure through a single, simple management console. The IC-Linux suite installs and licenses software modules that are integrated into HP System Insight Manager (HP SIM). HP Insight Control for Linux serves environments requiring a Linux-based management console. See www.hp.com/go/ic-linux. HP Insight Control for Linux includes one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: http://www.hp.com/services/insight
	HP Insight Control server deployment	HP Insight Control server deployment is an optional deployment solution for HP ProLiant and Integrity servers hosted on a Windows CMS. It automates the process of deploying and provisioning server software, enabling companies to quickly and easily adapt to changing business demands. Insight Control server deployment includes software optimizations for HP servers, including the HP scripting toolkits, configuration jobs for leading industry-standard operating systems, sample unattended files, and HP server support packs that include software drivers, management agents, and important documentation. Deploying servers can be accomplished either through imaging or through scripting. Insight Control server deployment is hosted on a Windows server and is intended for heterogeneous environments deploying Windows, Linux, VMware ESX and Microsoft Hyper-V systems. Insight Control server deployment includes one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support

staff and proactive delivery of software updates. For more information about this service, please visit: http://www.hp.com/services/insight

Industry Standard Compliance	ACPI V2.0 Compliant PCI 2.2 Compliant PXE Support WOL Support Microsoft® Logo certifications IPMI 2.0 Compliant
Security	Power-on password Setup password SSH and SSL Encryption
UPS and PDU Power Cord Matrix	Please see the UPS and PDU cable matrix's on the HP Power Protection and Management page. Under Power Cords, click on the "HP Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link: www.hp.com/products/powercords.
Power Supply	HP has a new design for ProLiant power- the new Common Slot Power Supply bay. This design provides the customer with commonality in power supplies across multiple platforms to save on the cost of spares and allows HP to offer multiple power solutions to fit the customers' needs. Many HP ProLiant Servers come with Common Slot, High Efficiency and Right-Size Power Supplies. The new HP Common Slot power supplies are designed for the highest power efficiency without degrading performance of the ProLiant server. Power Supplies have efficiency ratings up to 92%. There are three Right Size power options available depending on the configuration of your server. To make sure you select the correct power supply to meet your configuration, please use the HP Power Advisor at: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor. All HP Common Slot power sources are UL, CE Mark Compliant, Hot Plug and Redundant.

Standard Features

Common Slot ProLiant

It is highly recommended that you use the HP Power Calculator in defining the "Right-Size" power supply for your needs. HP offers three Power Supply Options:

- HP 460Watts, Common Slot, 92% Efficiency
- HP 750Watts, Common Slot, 92% Efficiency
- HP 1200Watts, Common Slot, 90% Efficiency

The HP ProLiant Common Slot Power supplies meet multiple Energy Efficiency Initiatives: Climate Savers Computing Initiative GOLD and ECOS Consulting 80PLUS GOLD for the 460w and 750w Power Supplies and Climate Savers Computing Initiative Silver, ECOS Consulting 80PLUS Silver for 1200w Power Supply. HP has also been working with the EPA on developing an ENERGY STAR? Computer Server specification and plans on offering models that meet the requirements when they are published. Please visit the ENERGY STAR website at: www.energystar.gov for updates on the specification development process and approved platforms.

Optional power supplies can be purchased through power supply option kits (see Power Supply Options for part numbers).

System Fans

3 system fans ship standard in z6000 chassis

Operating Systems and Virtualization Software Support for ProLiant Servers

Microsoft Windows Server
Microsoft Windows Server 2008 Hyper V
Red Hat Enterprise Linux (RHEL)
SUSE Linux Enterprise Server (SLES)
Solaris

NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: http://www.hp.com/go/supportos and our driver download page http://www.hp.com/support/SL165zG6.

Rack Airflow Requirements

Rack 10000 G2 series Cabinets

The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 G2 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.

CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment:

Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 5,350 sq cm (830 square inches) of hole evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation).
Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 7 cm (2.75 inches)

CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage.

Standard Features

Rack Support

HP ProLiant SL165z G6 models have two different rail kits to choose from:

- 10U bulk rail kit - Used to fit in HP 10000 series racks
  - One 10U bulk rail kit will hold up to five z6000 chassis, thus ten SL165z G6 servers
- 2U rail kit - Used to fit in 3rd party racks or to sell one z6000 chassis at a time
  - One 2U rail kit will hold one z6000 chassis, thus two SL165z servers

For additional information, please visit: www.hp.com/go/rackandpower

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HP Factory Express Capability

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSAxxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to: http://www.hp.com/go/factory-express.

HP Enterprise Configurator

The HP eConfigure Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.

Service and Support

HP Care Pack Services provide total care and support expertise with committed response designed to meet your IT and business needs.

HP Care Pack services include coverage for the HP branded hardware options qualified for the server that are purchased at the same time or afterward and internal to the enclosure. It also includes the 22" and smaller external monitors and tower UPS options up to 3kVA. These items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included and standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

To fully capitalize on your HP ProLiant servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions provides a range of support services designed to meet the varying needs of business. Whether an SMB or large global corporation HP has a ProLiant server support offer to help you speedily deploy and maximize system uptime.

Recommended Service - Simplify ProLiant solution implementation, maintenance and management.

- **Support Service** -3 Year, 9x5 Next Business Day coverage, excluding HP holidays only
- **Deployment Service** - Hardware Installation only

Enhanced Service - Optimize service level to increase IT performance and availability

- Support Service - 3 Year 13x5 Same Business Day, 4-Hour response coverage
- Deployment Service - Installation and Start-up only

Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays.

For a complete listing of service offerings and information visit:
http://www.hp.com/services/proliantservices
http://www.hp.com/services/carepack

HPC Interconnects

NOTE: High Performance Computing (HPC) interconnect technologies are available for the DL165 G6 under the Cluster Platform product portfolio. These high-speed interconnects are fully supported by HP when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPC Clusters with InfiniBand, Gigabit Ethernet or Myrinet Interconnects: http://www.hp.com/techservers/clusters/ucp/index.html

HPC Interconnects	InfiniBand	PCI-Express adapters
	Gigabit Ethernet	Use embedded ports or optional 10GbE NICs

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on CTO product offerings and requirements.
NOTE: HP does not allow factory integration of options into standard models listed above. Configure-to-order servers must start with a CTO Chassis.
NOTE: FIO indicates that this option is only available as a Factory Installable Option.

Step 1: Base Configuration (choose one from each list unless otherwise noted)

Chassis	HP ProLiant z6000 G6 Chassis NOTE: ships with 2U chassis and 3 fans.	538080-B21
Server Node	HP ProLiant SL165z G6 Server NOTE: It is required that 2 server trays be purchased. NOTE: Each SL165z tray has 1 system board.	580307-B21
Rail Kits	HP ProLiant z6000 G6 2U rail kit NOTE: 2U rail kit used for HP or 3rd part racks - allows addition of one z6000 chassis at a time.	570226-B21
	HP ProLiant z6000 G6 10U Bulk rail kit NOTE: 10U rail kit used for HP racks ONLY - allows addition of five z6000 chassis at a time.	570227-B21
Power Supplies	NOTE: Refer to HP Power Advisor when selecting a power supply for your configuration, www.hp.com/go/hppoweradvisor. Many HP ProLiant Servers now offer new power options, including Common Slot Power Supplies. These power supplies come in multiple power ratings and higher efficiency levels to offer the Right Size solution to fit your configuration. This provides improved power delivery and the advantage of reclaiming lost power. Prior to making a power supply selection it is "highly recommended" that the "HP Power Advisor" is run to determine the right size power supply for your server configuration. The HP Power Advisor is located at: "www.hp.com/go/proliant-energy-efficient" or www.hp.com/go/hppoweradvisor	
Power Supply Options	HP 460W CS HE Gold Power Supply	503296-B21
	HP 750W CS HE Gold Power Supply	512327-B21
	HP 1200W CS HE Silver Power Supply	500172-B21

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Processors	**Six-Core Processors**	
	AMD Opteron™ processor Model 2435 (2.6 GHz, 75W ACP), Option Kit, FIO NOTE: If 2 processors are desired, select one 572221-L21 and one 572221-B21.	572221-L21
	AMD Opteron™ processor Model 2431 (2.4 GHz, 75W ACP), Option Kit, FIO NOTE: If 2 processors are desired, select one 572219-L21 and one 572219-B21.	572219-L21
	AMD Opteron™ processor Model 2427 (2.2 GHz, 75W ACP), Option Kit, FIO NOTE: If 2 processors are desired, select one 5721421-L21 and one 572142-B21.	572142-L21
	AMD Opteron™ processor Model 2425HE (2.1GHz, 55W ACP), Option Kit, FIO NOTE: If 2 processors are desired, select one 572140-L21 and one 572140-B21.	572140-L21
	AMD Opteron™ processor Model 2423HE (2.0GHz, 55W ACP), Option Kit, FIO NOTE: If 2 processors are desired, select one 572138-L21 and one 572138-B21.	572138-L21
	Quad-Core Processors	
	AMD Opteron™ processor Model 2393SE (3.1GHz, 105W ACP), FIO NOTE: If 2 processors are desired, select one 500062-L21 and one 500062-B21.	500062-L21
	AMD Opteron™ processor Model 2389 (2.9GHz, 75W ACP), FIO NOTE: If 2 processors are desired, select one 500049-L21 and one 500049-B21.	500049-L21
	AMD Opteron™ processor Model 2384 (2.7GHz, 75W ACP), FIO NOTE: If 2 processors are desired, select one 500064-L21 and one 500064-B21.	500064-L21
	AMD Opteron™ processor Model 2380 (2.5GHz, 75W ACP), FIO NOTE: If 2 processors are desired, select one 500060-L21 and one 500060-B21.	500060-L21
	AMD Opteron™ processor Model 2376 (2.3GHz, 75W ACP), FIO NOTE: If 2 processors are desired, select one 500056-L21 and one 500056-B21.	500056-L21
	AMD Opteron™ processor Model 2381HE (2.5GHz, 55W ACP), FIO NOTE: If 2 processors are desired, select one 500058-L21 and one 500058-B21.	500058-L21
	AMD Opteron™ processor Model 2376 HE (2.3GHz, 55W ACP), FIO NOTE: If 2 processors are desired, select one 507540-L21 and one 507540-B21.	507540-L21
	AMD Opteron™ processor Model 2374 HE (2.2GHz, 55W ACP), FIO NOTE: If 2 processors are desired, select one 500051-L21 and one 500051-B21.	500051-L21
	AMD Opteron™ processor Model 2377EE (2.3GHz, 50W ACP), FIO NOTE: If 2 processors are desired, select one 500030-L21 and one 500030-B21.	536530-B21

Memory	2 GB REG PC2-6400 2 x 1 GB Kit	497763-B21
	2 GB REG PC2-5300 2 x 1 GB Low Power Single Rank Kit	483399-B21
	4 GB REG PC2-6400 2 x 2 GB Kit	497765-B21
	4 GB REG PC2-5300 2 x 2 GB Low Power Single Rank Kit	483401-B21
	8 GB REG PC2-6400 2 x 4 GB Kit	497767-B21
	8 GB REG PC2-6400 2 x 4 GB Low Power Kit	504351-B21
	8 GB REG PC2-5300 2 x 4 GB Low Power Dual Rank Kit	483403-B21
	16 GB REG PC2-5300 2 x 8 GB Kit	408855-B21

Hard Drive	NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components. NOTE: Hard drives have either a one year or three year warranty. NOTE: The hard drives use a quick release carrier. NOTE: One 2 Drive SFF Drive Cage (582657-B21) is required when installing 2 SFF drives. NOTE: when Adding SAS one of the following cable kits needs to be ordered depending on which SAS controller installing - HP P212 SAS 4HDD Cable Kit 574001-B21 or HP P410 SAS 4HDD Cable Kit 583997-B21.	
	SAS Enterprise (ENT) Drives - with quick-release (QR) carrier	
	HP 600GB 6G SAS 15K 3.5in QR DP ENT HDD	574758-B21
	HP 300GB 6G SAS 15K 3.5in QR DP ENT HDD	585980-B21
	HP 300GB 6G SAS 10K 2.5in QR DP ENT HDD	574879-B21
	SATA Entry (ETY) Drives - with quick-release (QR) carrier	
	HP 160GB 3G SATA 7.2K 3.5in QR ETY HDD	574021-B21
	SATA Midline (MDL) Drives - with quick-release (QR) carrier	
	HP 500GB 3G SATA 7.2K 3.5in QR MDL HDD	574023-B21
	HP 1TB 3G SATA 7.2K 3.5in QR MDL HDD	574025-B21
	HP 500GB 3G SATA 7.2K 2.5in QR MDL HDD	574953-B21
	HP 160GB 3G SATA 7.2K 2.5in QR MDL HDD	574893-B21
	SATA Midline (MDL) Solid State Drives - with quick-release (QR) carrier	
	HP 120GB 3G SATA 2.5in QR MDL SSD	586587-B21
	HP 60GB 3G SATA 2.5in QR MDL SSD	586585-B21
Storage Controllers	HP Smart Array P212/256 MB w/ Battery FIO NOTE: HP P212 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P212 controller (574001-B21) NOTE: HP z6000 BBWC HDWR KIT is required when adding BBWC (582653-B21)	491191-B21
	HP Smart Array P410/ZM FIO Controller NOTE: HP P410 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P410 controller (583997-B21)	462860-B21
	HP Smart Array P410/256 MB w/ Battery FIO NOTE: HP P410 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P410 controller (583997-B21) NOTE: HP z6000 BBWC HDWR KIT is required when adding BBWC (582653-B21)	491195-B21
	HP Smart Array P411/256 MB w/ Battery FIO NOTE: HP z6000 BBWC HDWR KIT is required when adding BBWC (582653-B21)	491193-B21

Step 3: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Core Options" and "Additional Options" section below.

Core Options

NOTE: Some options may not be available for factory integration. Please contact an HP sales representative for additional information.

Unique Options	HP I/O Riser x16 SL165 G6 KIT	580638-B21
	HP ProLiant z6000 Redundant Fan Kit	538082-B21
	HP Internal USB Cable G6 Kit	536769-B21
	HP ProLiant z6000 Tray blank kit NOTE: This is needed to help with cooling if a tray is removed from the z6000.	574551-B21
	HP ProLiant z6000 Cable Management Kit NOTE: This is needed when using Fiber cables.	575156-B21
	1U Filler Panel Blank Mounting Bracket NOTE: This is needed to mount the 1U blanking panel back with server when the server is recessed mounted.	579069-B21
	HP P212 SAS 4HDD Cable Kit NOTE: This is required when adding SAS hard drives using the P212 controller.	574001-B21
	HP P410 SAS 4HDD Cable Kit NOTE: This is required when adding SAS hard drives using the P410 controller.	583997-B21
	HP z6000 BBWC HDWR KIT NOTE: This is required when adding BBWC.	582653-B21
	2 Drive SFF Drive Cage NOTE: This is required when adding SFF (2.5") SSD or hard drives.	582657-B21
	HP z6000 Processor / Memory Blank Kit NOTE: This is optional to give the best cooling efficiency when server trays are not configured exactly the same in the z6000 chassis.	579255-B21
Processor	Six-Core Processors	
	AMD Opteron™ processor Model 2435 (2.6 GHz, 75W ACP)	572221-B21
	AMD Opteron™ processor Model 2431 (2.4 GHz, 75W ACP)	572219-B21
	AMD Opteron™ processor Model 2427 (2.2 GHz, 75W ACP)	572142-B21
	AMD Opteron™ processor Model 2425HE (2.1GHz, 55W ACP)	572140-B21
	AMD Opteron™ processor Model 2423HE (2.0GHz, 55W ACP)	572138-B21
	Quad-Core Processors	
	AMD Opteron™ processor Model 2393SE (3.1GHz, 105W ACP)	500062-B21
	AMD Opteron™ processor Model 2389 (2.9GHz, 75W ACP)	500049-B21
	AMD Opteron™ processor Model 2384 (2.7GHz, 75W ACP)	500064-B21
	AMD Opteron™ processor Model 2380 (2.5GHz, 75W ACP)	500060-B21
	AMD Opteron™ processor Model 2376 (2.3GHz, 75W ACP)	500056-B21
	AMD Opteron™ processor Model 2381HE (2.5GHz, 55W ACP)	500058-B21
	AMD Opteron™ processor Model 2376 HE (2.3GHz, 55W ACP)	507540-B21
	AMD Opteron™ processor Model 2374 HE (2.2GHz, 55W ACP)	500051-B21
	AMD Opteron™ processor Model 2377EE (2.3GHz, 50W ACP)	536530-B21

Core Options

Memory (DIMMs)	2 GB REG PC2-6400 2 x 1 GB Kit	497763-B21
	2 GB REG PC2-5300 2 x 1 GB Low Power Single Rank Kit	483399-B21
	4 GB REG PC2-6400 2 x 2 GB Kit	497765-B21
	4 GB REG PC2-5300 2 x 2 GB Low Power Single Rank Kit	483401-B21
	8 GB REG PC2-6400 2 x 4 GB Kit	497767-B21
	8 GB REG PC2-6400 2 x 4 GB Low Power Kit	504351-B21
	8 GB REG PC2-5300 2 x 4 GB Low Power Dual Rank Kit	483403-B21
	16 GB REG PC2-5300 2 x 8 GB Kit	408855-B21
	64 GB REG PC2-5300 8 x 8 GB Kit	495605-B21
Hard Drives	NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.	
	NOTE: Hard drives have either a one year or three year warranty.	
	NOTE: The hard drives use a quick release carrier.	
	NOTE: One 2 Drive SFF Drive Cage (582657-B21) is required when installing 2 SFF drives.	
	NOTE: When adding SAS one of the following cable kits needs to be ordered depending on which SAS controller installing - HP P212 SAS 4HDD Cable Kit 574001-B21 or HP P410 SAS 4HDD Cable Kit 583997-B21.	
	SAS Enterprise (ENT) Drives - with quick-release (QR) carrier	
	HP 600GB 6G SAS 15K 3.5in QR DP ENT HDD	574758-B21
	HP 300GB 6G SAS 15K 3.5in QR DP ENT HDD	585980-B21
	HP 300GB 6G SAS 10K 2.5in QR DP ENT HDD	574879-B21
	SATA Entry (ETY) Drives - with quick-release (QR) carrier	
	HP 160GB 3G SATA 7.2K 3.5in QR ETY HDD	574021-B21
	SATA Midline (MDL) Drives - with quick-release (QR) carrier	
	HP 500GB 3G SATA 7.2K 3.5in QR MDL HDD	574023-B21
	HP 1TB 3G SATA 7.2K 3.5in QR MDL HDD	574025-B21
	HP 500GB 3G SATA 7.2K 2.5in QR MDL HDD	574953-B21
	HP 160GB 3G SATA 7.2K 2.5in QR MDL HDD	574893-B21
	SATA Midline (MDL) Solid State Drives - with quick-release (QR) carrier	
	HP 120GB 3G SATA 2.5in QR MDL SSD	586587-B21
	HP 60GB 3G SATA 2.5in QR MDL SSD	586585-B21

Core Options

Communications	Gigabit Ethernet Adapters	
	HP NC112T PCIe Gigabit Server Adapter	503746-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter	435508-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter	458492-B21
	HP NC375T PCI Express Quad Port Gigabit Server Adapter	538696-B21
	10 Gigabit Ethernet Adapters	
	HP NC522SFP Dual Port 10GbE Server Adapter NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each NC522SFP adapter. NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs	468332-B21
Riser Options	HP I/O Riser x16 SL165 G6 KIT	580638-B21

Additional Options

Remote Management	HP Lights-Out 100i Advanced Pack	
	HP LO100i Advanced Pack, No Media 1-Server License including 1 year of 24x7 Technical Support and Updates	530521-B21
	NOTE: For additional information, please see the Lights-Out 100i QuickSpecs at: www.hp.com/go/lo100.	
HP Insight Software	HP Insight Control for Linux	
	HP Insight Control for Linux, 1-server license, including one year of 24x7 Technical Support and Updates, Electronic	T9084BAE
	HP Insight Control for Linux, No Media, 1-Server license, including one year of 24x7 Technical Support and Updates	464423-B22
	HP Insight Control for Linux, Media pack (DVD) - No licenses included	464422-B22
	NOTE: Media pack DVD contains the ISO image for HP Insight Control for Linux, HP Systems Insight Manager, HP Insight Control power management, HP Insight Control virtual machine management, and an integrated installer. Servers must be acquired separately.	
	NOTE: Licenses ship without media. The Media Kit for Insight Control for Linux can be ordered separately, or can be downloaded at: http://www.hp.com/go/ic-linux (click on Download button).	
	NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent.	
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single set of activation keys.	
	NOTE: For additional License Kits, including electronic licensing options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/13019_div/13019_div.html	
	HP Insight Control server deployment	
	HP Insight Control server deployment, Electronic License including 1 year of 24x7 Technical Support and Updates	T9082AAE
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.	
	NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent.	
	NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.	
	NOTE: Licenses ship without media. The Insight Software Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightcontrol (click on Download button).	
	NOTE: For additional license options please see the Insight Control QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.html	

Additional Options

Rail Options	HP ProLiant z6000 G6 2U rail kit NOTE: 2U rail kit used for HP or 3rd part racks - allows addition of one z6000 chassis at a time.	570226-B21
	HP ProLiant z6000 G6 10U Bulk rail kit NOTE: 10U rail kit used for HP racks ONLY - allows addition of five z6000 chassis at a time.	570227-B21
	HP SL Universal Switch Rail Kit NOTE: This kit allows you to install HP or 3rd party switch in the same rack as SL6000.	592774-B21
Storage Controllers	SAS Controllers	
	Smart Array P212 Controller NOTE: HP P212 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P212 controller (574001-B21)	
	HP Smart Array P212/Zero Memory Controller	462828-B21
	HP Smart Array P212/256 MB Controller	462834-B21
	Smart Array P410 Controller NOTE: HP P410 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P410 controller (583997-B21)	
	HP Smart Array P410/256MB Controller	462862-B21
	HP Smart Array P410/512MB with BBWC	462864-B21
	Smart Array P411 Controller	
	HP Smart Array P411/256MB Controller	462830-B21
	HP Smart Array P411/512MB Battery Backed Write Cache	462832-B21
	Optional Upgrades NOTE: HP z6000 BBWC HDWR KIT is required when adding BBWC (582653-B21)	
	256 MB Cache Module NOTE: Supported on HP Smart Array P212 Controller only.	462968-B21
	512MB BBWC NOTE: Supported on HP Smart Array P410 Controller and HP Smart Array P411 Controller only.	462967-B21
	Battery Kit upgrade NOTE: To enable BBWC on the 256MB cache. NOTE: Supported on HP Smart Array P212 Controller, HP Smart Array P410 Controller, and HP Smart Array P411 Controller only.	462969-B21
	NOTE: Please see the following QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13203_div/13203_div.html (Smart Array P212 Controller) http://h18000.www1.hp.com/products/quickspecs/13201_div/13201_div.html (Smart Array P410 Controller) http://h18000.www1.hp.com/products/quickspecs/13202_div/13202_div.html (Smart Array P411 Controller)	

Additional Options

HPC Specific Options	HP IB 4X DDR PCI-e Dual Port HCA	448397-B21
	HP IB 4X DDR PCI-e Dual Port 0 Memory HCA	483513-B21
	HP 10 GbE PCI-e G2 Dual Port Adapter	516937-B21
	NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13078_div/13078_div.html	
StorageWorks Options	StorageWorks SCSI HBA	
	HP U320e SCSI Host Bus Adapter	AH627A
	NOTE: Recommended for MSL SCSI Tape Library connect.	
	NOTE: Recommended Dual Channel Ultra320 SCSI Controller for connecting multi-drive MSL tape libraries to ProLiant servers.	
HP StorageWorks Modular Smart Array	MSA SAN Storage Arrays	
	HP StorageWorks 50 Modular Smart Array	364430-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.html (Worldwide)	
	HP StorageWorks 60 Modular Smart Array	418408-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12627_div/12627_div.html	
	HP StorageWorks 70 Modular Smart Array	418800-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12652_div/12652_div.html	
Uninterruptible Power Systems	HP Rack-mountable UPS	
	HP R1500 G2 UPS	
	HP, R1.5kVA UPS, 1U, NA	AF419A
	HP, R1.5kVA UPS, 1U, INTL	AF418A
	HP, R1.5kVA UPS, 1U, JPN/TW	AF421A
	NOTE: Please see QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12507_div/12507_div.html (Worldwide)	
	NOTE: For additional information on sizing your server, please reference: http://www.upssizer.com.	
	HP R3000 UPS Uninterruptible Power System	
	HP R3000 UPS	AF444A
	NOTE: The R3000v is available in China and India only.	

Additional Options

NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13129_div/13129_div.html (Worldwide)
NOTE: For additional information on HP Uninterruptible Power Systems please go to: www.hp.com/servers/rackups.

HP Rack Series	HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	
	S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22
	10642 G2 (42U) Rack Cabinet - Pallet	AF001A
	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A
	10642 G2 (42U) Rack Cabinet - Crated	AF003A
	10636 G2 (36U) Rack Cabinet - Pallet	AF011A
	10636 G2 (36U) Rack Cabinet - Shock Pallet	AF012A
	10636 G2 (36U) Rack Cabinet - Crated	AF013A
	10636 G2 (36U) Rack Cabinet, with Extension - Shock Pallet	AF014A
	10622 G2 (22U) Rack Cabinet - Pallet	AF021A
	10622 G2 (22U) Rack Cabinet - Shock Pallet	AF022A
	10642 G2 (42U) Rack Cabinet 1200mm Deep - Shock Pallet	AF034A
	10642 G2 (42U) Rack Cabinet 1200mm Deep - Pallet	AF038A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Pallet	AF041A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Shock Pallet	AF042A
	10647 G2 (47U) Rack Cabinet - Pallet	AF031A
	10647 G2 (47U) Rack Cabinet 1200mm Deep - Shock Pallet	AF044A
	NOTE: Due to handling and shipping requirements, AF044A is only orderable through HP Factory Express. It is not for direct sales. Customer site surveys are required before an order is approved. CTO orders may require additional lead time.	
	10647 G2 (47U) Rack Cabinet 1200mm Deep - Pallet	AF045A
	NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed.	
	NOTE: xxxxxx-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels).	
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.html (Worldwide)	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.	

Additional Options

HP Rack Options	**HP KVM Switch Options**	
	HP 1x4 Console Switch	AF611A
	HP PS2 Server Console Cable, 6 foot, 2-Pack	AF612A
	HP USB Server Console Cable, 6 foot, 2-Pack	AF613A
	NOTE: Required for supporting USB peripheral.	
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.	
USB and SD Options	HP USB Internal Cable Kit	451363-B21
	1.44MB External USB Floppy Drive All	DC141B
	USB Floppy Drive	DC361B
	USB P/S2 Optical Mouse	DC369A
	USB Standard Keyboard All	DT528A
Service and Support Offerings (HP Care Pack Services)	**Hardware Services 4-Hour On-site Service**	
	13-Hour x 5-Day Coverage, 3 Years, Electronic	U9509E
	24-Hour x 7-Day Coverage, 3 Years, Electronic	U9510E
	Hardware Services Next Business Day On-Site Service	
	9-Hour x 5-Day Coverage, 3 Years, Electronic	U9508E
	Hardware Services 6-Hour Call to Repair On-Site Service	
	9-Hour x 5-Day Coverage, 3 Years, Electronic	U9511E
	Hardware Installation, Electronic	U9520E
	NOTE: For more information, customer/resellers can contact: http://www.hp.com/services/carepack.	

Memory

NOTE: Memory configurations listed do not apply to "Factory Integrated Models".

HP ProLiant SL165z G6 (all models)

Maximum Memory

Up to 128GB memory is available with the optional installation of PC2-5300 Registered DIMM memory kits.
Memory should be installed in pairs and matched for optimum performance.

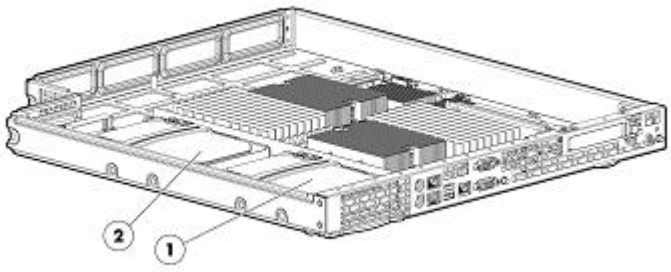
NOTE: Chart does not represent all possible memory configurations.

NOTE: Each processor support 4 DIMM sockets. Both processors sockets must be populated in order to use all 8 DIMM sockets.

Memory	Slot							
	1	2	3	4	5	6	7	8
Standard (2 GB)	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Maximum (128 GB)	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
	9	10	11	12	13	14	15	16
	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB

Following are memory options available from HP:

2 GB REG PC2-6400 2 x 1 GB Kit	497763-B21
2 GB REG PC2-5300 2 x 1 GB Low Power Single Rank Kit	483399-B21
4 GB REG PC2-6400 2 x 2 GB Kit	497765-B21
4 GB REG PC2-5300 2 x 2 GB Low Power Single Rank Kit	483401-B21
8 GB REG PC2-6400 2 x 4 GB Kit	497767-B21
8 GB REG PC2-6400 2 x 4 GB Low Power Kit	504351-B21
8 GB REG PC2-5300 2 x 4 GB Low Power Dual Rank Kit	483403-B21
16 GB REG PC2-5300 2 x 8 GB Kit	408855-B21
64 GB REG PC2-5300 8 x 8 GB Kit	495605-B21



1-2 Non-hot plug SATA hard drive bays - Using quick release carrier

Drive Support

Hard Drives

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

NOTE: Hard drives have either a one year or three year warranty.

SATA Entry (ETY) Drives - with quick release carrier

	Quantity Supported	Position Supported	Controller
160GB 3G SATA 7.2K 3.5in	Up to 2	1-2	HP Embedded SATA Controller

SATA Midline (MDL) Drives - with quick release carrier

	Quantity Supported	Position Supported	Controller
1TB 3G SATA 7.2K 3.5in 500GB 3G SATA 7.2K 3.5in	Up to 2	1-2	HP Embedded SATA Controller
500GB 3G SATA 7.2K 2.5in 160GB 3G SATA 7.2K 2.5in	Up to 4	1-4	HP Embedded SATA Controller

SAS Enterprise (ENT) Drives - with quick-release carrier

	Quantity Supported	Position Supported	Controller
600GB 6G SAS 15K 3.5in 300GB 6G SAS 15K 3.5in	Up to 2	1-2	HP Smart Array P212/Zero Memory Controller HP Smart Array P212/256 MB Controller NOTE: HP P212 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P212 controller. HP Smart Array P410/256MB Controller

Storage

			HP Smart Array P410/512MB with BBWC NOTE: HP P410 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P410 controller.
300GB 6G SAS 10K 2.5in	Up to 4	1-4	HP Smart Array P212/Zero Memory Controller HP Smart Array P212/256 MB Controller NOTE: HP P212 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P212 controller. HP Smart Array P410/256MB Controller HP Smart Array P410/512MB with BBWC NOTE: HP P410 SAS 4HDD Cable Kit is required when adding SAS hard drives using the P410 controller.

SATA Midline (MDL) Solid State Drives - with quick-release carrier

	Quantity Supported	Position Supported	Controller
120GB 3G SATA 2.5in 60GB 3G SATA 2.5in	Up to 4	1-4	HP Embedded SATA Controller

External Storage

	Quantity Supported	Position Supported	Controller
60 Modular Smart Array	Up to 4	External	HP Smart Array P212/256 MB Controller
	Up to 8	External	HP Smart Array P411/256MB Controller HP Smart Array P411/512MB Battery Backed Write Cache
70 Modular Smart Array	Up to 2	External	HP Smart Array P212/256 MB Controller
	Up to 4	External	HP Smart Array P411/256MB Controller HP Smart Array P411/512MB Battery Backed Write Cache

Power Specifications

HP 460W Power Supply Part Number - AC 460W PSU	503296-B21						
Input Voltage Range (Vrms)	100 to 240						
Frequency Range (Nominal) (Hz)	50/60						
Nominal Input Voltage (Vrms)	100	120	208	200	220	230	240
Maximum Rated Output Wattage	460	460	460	460	460	460	460
Nominal Input Current (A rms)	5.5	4.5	2.6	2.5	2.4	2.3	2.2
Max Rated Input Wattage Rating (Watts)	526	520	505	505	503	503	503
Max. Rated VA (Volt-Amp)	548	542	527	527	524	524	524
Efficiency (%) at Max. Rated Output Wattage	87.5	88.5	91	91	91.5	91.5	91.5
Power Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Leakage Current (mA)	0.42	0.50	0.83	0.87	0.92	0.96	1.00
Max. Inrush Current (A peak)	30	30	30	30	30	30	30
Max. Inrush Current duration (mS)	20	20	20	20	20	20	20
Maximum British Thermal Unit Rating (BTU-Hr)	1794	1773	1725	1725	1715	1715	1715

HP 750W Power Supply Part Number - AC 750W PSU	512327-B21						
Input Voltage Range (Vrms)	100 to 240						
Frequency Range (Nominal) (Hz)	50/60						
Nominal Input Voltage (Vrms)	100	120	208	200	220	230	240
Maximum Rated Output Wattage	750	750	750	750	750	750	750
Nominal Input Current (A rms)	8.9	7.4	4.3	4.1	3.9	3.7	3.6
Max Rated Input Wattage Rating (Watts)	857	847	824	825	820	820	820
Max. Rated VA (Volt-Amp)	894	884	859	859	854	854	854
Efficiency (%) at Max. Rated Output Wattage	87.5	88.5	91	91	91.5	91.5	91.5
Power Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Leakage Current (mA)	0.42	0.50	0.83	0.87	0.92	0.96	1.00
Max. Inrush Current (A peak)	30	30	30	30	30	30	30
Max. Inrush Current duration (mS)	20	20	20	20	20	20	20
Maximum British Thermal Unit Rating (BTU-Hr)	2925	2892	2812	2812	2797	2797	2797

Power Specifications

HP 1200W Power Supply Part Number - AC	500172-B21						
Operational Input Voltage Range (Vrms)	100 to 240						
Frequency Range (Nominal) (Hz)	50/60						
Nominal Input Voltage (Vrms)	100	120	208	200	220	230	240
Maximum Rated Output Wattage	800	900	1200	1200	1200	1200	1200
Nominal Input Current (A rms)	9.7	9.0	7.0	6.8	6.4	9.1	5.9
Max Rated Input Wattage Rating (Watts)	930	1034	1348	1348	1348	1348	1348
Max. Rated VA (Volt-Amp)	970	1079	1406	1406	1406	1406	1406
Efficiency (%) at Max. Rated Output Wattage	86	87	89	89	89	89	89
Power Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Leakage Current (mA)	0.42	0.50	0.83	0.87	0.92	0.96	1.00
Max. Inrush Current (A peak)	30	30	30	30	30	30	30
Max. Inrush Current duration (mS)	20	20	20	20	20	20	20
Maximum British Thermal Unit Rating (BTU-Hr)	3174	3530	4600	4600	4600	4600	4600

To review typical system power ratings use the Active Answers HP Power Advisor which is available via the online tool located at URL: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor

System Unit	Dimensions (H x W x D) (with bezel)	3.46 x 17.64 x 28.1 in (8.79 x 44.80 x 71.37 cm)	
	Weight (approximate)	Maximum (all hard drives, power supplies, and processors installed)	53.7 lb (24.35 kg)
	Input Requirements (per power supply)	Rated Line Voltage	90 to 132 VAC 180 to 264 VAC
		Rated Input Current	5. 8 Amps (at 100 VAC) to 2.9 Amps (at 200 VAC)
		Rated Input Frequency	47 to 63 Hz
		Rated Input Power	570W (at 100 VAC) 565W (at 200 VAC)
	BTU Rating	Maximum	-500W 1940 BTU / hr (at 100 VAC), 1920 BTU/hr (at 200 VAC) 460W - 1773 BTU / hr (at 120 VAC), 1715 (at 240 VAC) 750W - 2892 BTU / hr (at 120 VAC), 2797 (at 240 VAC)
	Power Specifications	To review typical system power ratings use the Power Advisor which is available via the online tool located at URL: www.hp.com/go/hppoweradvisor - Click on the system of interest. Example: DL165 G6 - Follow the instructions of the next screens.	
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Relative Humidity (non-condensing)	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	
		Idle	
		L_{WAd}	6.82 B
		L_{pAm}	51.93 dBA
		Operating	
		L_{WAd}	6.84 B
		L_{pAm}	51.93 dBA
	Emissions Classification (EMC)	FCC Rating	Class A
		Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
		NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.	
HP Embedded SATA Controller	Drives Supported	Up to 4 SATA devices	
	Channels	(4) 1.5Gb SATA	
	Storage Capacity	2.0TB internal storage	
	Data Transfer Method	32-bit/33-MHz PCI bus-master	
	Maximum SATA Channel Transfer Rate	1.5Gb/s per channel	
	Maximum Transfer Rate per PCI Bus (peak)	266 MB/s per channel	
	Protocols	SATA	
		PIO Mode [0-4]	
	Cable	SATA	
	Internal ATA Connectors	Four SATA connectors	

Technical Specifications

HP NC362i Integrated Dual Port Gigabit Server Adapter	Network Interface	Integrated 10/100/1000BASE-T Transceiver	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3 1000Base-T	
		IEEE 802.3 100Base-TX	
	Data Transfer Method	Compliant to x4 PCIe Specification	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Half and Full-Duplex)	2000 Mb/s
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 UTP (2 Pair); up to 328 ft (100 m)

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.